

## Study: Lower Corticosteroid Doses Might be Beneficial

Initial results of a study conducted at the University of Kentucky Gluck Equine Research Center suggest accepted dosage levels for several commonly used corticosteroids might be worth further study.

At the Kentucky Equine Drug Research Council's (KEDRC) regular meeting March 12 in Lexington, Jamie MacLeod, VMD, PhD, John S. and Elizabeth A. Knight chair and professor of veterinary science at the Gluck Center, outlined initial results of a study that evaluated the efficacy and dangers of methylprednisolone, betamethasone, and triamcinolone, which many veterinarians use to treat ailing joints in racehorses.

The researchers concluded that the desired therapeutic effects of the corticosteroid treatments, especially methylprednisolone and betamethasone, could be accomplished at lower dosage levels than recommended by the manufacturer and commonly used on the backstretch. MacLeod said as they increased dosage levels, they observed more negative side effects.

MacLeod said further study is needed to determine the proper dosage levels to use corticosteroids to treat inflammation and pain while avoiding negative side effects, including death of healthy cells in the joint.

The researchers initially noted the various levels at which corticosteroids killed healthy cells *in vitro* (in the laboratory). Then they saw the same effects *in vivo* (within the horse) when they injected horses' fetlocks with corticosteroids. They injected the horses' alternate fetlock with a placebo as a control.

MacLeod again saw negative side effects, such as death of healthy cells, in the fetlocks treated with the corticosteroids. MacLeod said at lower doses, the therapeutic effects occurred with little or no adverse side effects.

MacLeod believes recommended dosage levels could be too high to begin with and he noted that, in practice, some horses might be receiving significantly more than the recommended level.

"We need a dose large enough for efficacy but small enough to avoid cell death," MacLeod said of the recommended dosage, which he said currently appears to be closer to the level that causes cell death than the level needed for efficacy. "I am not opposed to corticosteroids; they can be highly beneficial. I think we can find a better dose to achieve those goals."

KEDRC member and veterinarian Andy Roberts, DVM, noted that many racetrack veterinarians already administer doses lower than the recommended maximum level.

MacLeod said veterinarians who routinely administer high levels of corticosteroids will not see added benefits. He said because 100% efficacy is reached at a relatively low dosage level, any levels above that only add the negative side effects without adding any therapeutic benefit. **UK**

>Frank Angst is a staff writer at *The Blood-Horse*.

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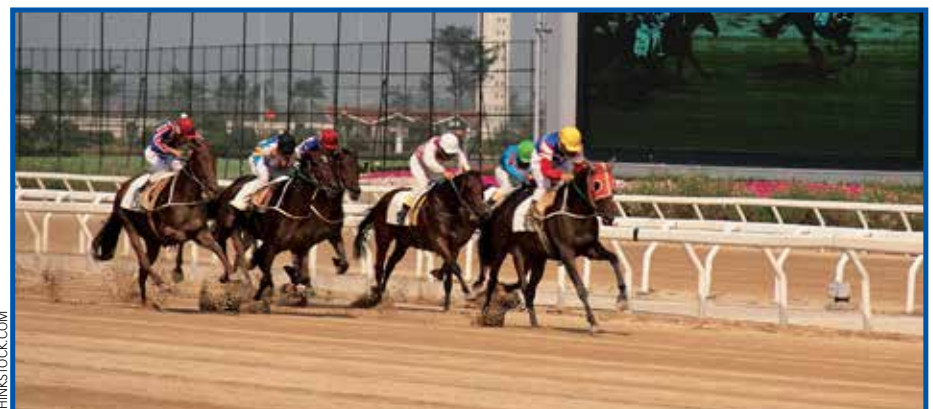
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Veterinarians use corticosteroids to treat ailing joints in racehorses.

## Winter No Threat to Eastern Tent Caterpillar Eggs

Blasts of polar air across Kentucky made this winter one to remember, but experts say the Eastern tent caterpillar probably didn't take notice.

These insects spend the winter as tiny, fully-developed caterpillars in distinctive egg masses that encircle twigs of wild cherry and related tree species. The Eastern tent caterpillar is one of the first insects to become active in the spring and is well-adapted to survive Kentucky's often erratic winter and early spring weather.

"Hardy may be too mild a term for them. Laboratory studies have shown that caterpillars in the egg can withstand temperatures down to 31 below zero Fahrenheit," said Lee Townsend, PhD, University of Kentucky (UK) College of Agriculture, Food and Environment extension entomologist. "It has been a cold winter, but temperatures have not been low enough to expect a significant reduction in egg hatch this spring."

Townsend said dissections of some eggs collected in early March show a nearly 80% survival, which is typical of most years. That is also the same rate UK entomology researchers calculated in studies of the 2001 mare reproductive loss syndrome (MRLS), which resulted in staggering foal losses. MRLS can cause late-term foal losses, early- and late-term fetal losses, and weak foals. Results from subsequent studies by UK researchers revealed that horses will inadvertently eat the caterpillars, and the caterpillar hairs embed into the alimentary tract lining. Once that protective barrier is breached, normal alimentary tract bacteria can gain access to and reproduce in sites with reduced immunity, such as the fetus and placenta.

"The growth and development of many insects is directly dependent on temperature. Usually, this allows relatively accurate predictions of egg hatch and development. Unfortunately, the Eastern tent caterpillar is an exception," Townsend said. "Predictive models using degree-day information can provide a general idea of when egg hatch can occur, but actual hatch in the field is variable.

"In fact, eggs from a single mass usually hatch over about a two-week period, not

all at once," he continued. "This is an important survival mechanism that protects the species from high mortality. Prolonged egg hatch increases the chances of species survival, even if some early caterpillars are killed by freezes or heavy rains during early spring."



UNIVERSITY OF KENTUCKY

An Eastern tent caterpillar emerges from its egg.

Townsend said Kentucky arborist Larry Hanks has tracked the Eastern tent caterpillar egg hatch in Central Kentucky since 2001. His earliest hatch observation was March 13, 2012, and the latest was April 4, 2013. Typically, the caterpillars first appear during the second or third week of March.

"It is still too early to provide a general prediction for 2014," Townsend said. "Continued cold will slow development, but a string of 70-degree days can cause egg hatch to begin in a short time."

He added that Eastern tent caterpillar populations seem

to have increased over the past five to seven years, with numerous tents visible in wild cherry trees along fence-lines in some areas of the state. Regrowth and sprouting of new trees might have resulted in increases in host trees and, subsequently, the caterpillars.

To get rid of active caterpillars, Townsend recommends pruning and destroying the nests as they are seen, if practical. Property owners can apply any one of several insecticides registered for use on shade trees as needed and as spot treatments to the tents and/or the foliage around them. Label directions vary by product.

"This is a good time to prepare," Townsend said. "Begin by checking pasture fence-lines to see how abundant wild cherry is in them. If practical, plan to move pregnant mares from areas where these trees are abundant to minimize the chance of exposure to the caterpillars. The potential is greatest when the mature tent caterpillars leave trees and wander to find places to pupate and transform to the moth stage." UK

>Lee Townsend, PhD, UK College of Agriculture entomologist, and Holly Wiemers, MA, communications director for UK Ag Equine Programs, provided this information.

## New Statistical Model to Evaluate Dewormer Efficacy

Research teams from the University of Kentucky Gluck Equine Research Center and George Mason University have defined a new advanced statistical model to evaluate anthelmintic dewormer efficacy. The researchers set out to illustrate sources of variability in fecal egg count reduction tests in horses and to develop a model to identify biological factors such as age, gender, and farm management that affect dewormer efficacy.

The fecal egg count reduction test to evaluate dewormer efficacy is the most



COURTESY KRISTEN JANICKI

common method to determine drug resistance to horse parasites. In cases where the efficacy is either very high or very low, there are few statistical challenges to consider, and results are often clear without complicated data analysis.

Martin Nielsen, DVM, PhD, Dipl. EVPC, ACVM, assistant professor at the Gluck Center, said when results are close to the chosen cutoff value for determining resistance, the variability plays an important role and can lead to misclassification of some farms.

## Dewormer Efficacy

“The statistical model we have developed accounts for various biological sources of egg count variability and provides a more reliable result,” he said. “We chose to study the efficacy of pyrantel pamoate (a commonly used dewormer). Efficacy data generated with this drug is known to have a great deal of variability. The overall aim of the study is to differentiate between a true egg count reduction and an apparent reduction due to chance variability in the data.”

The team performed their study on 64 Danish horse farms of different breeds. Of 1,644 horses, 614 had egg counts more than 200 eggs per gram and were treated. They collected fecal samples before pyrantel pamoate treatment and again two weeks after.

The data showed that the statistical model could be organized. Because horses on the same farm share the same management, soil type, and vegetation, their worm burdens are likely to be more alike when compared to horses from other farms, Nielsen said. There will often be differences between farms, but farms in the same geographic area are likely to be similar due to soil and vegetation types and perhaps even management habits.

“In our data, the hierarchy is horses within farms, and farms within defined geographical areas. If these sources of variability are well-controlled, we can generate a more reliable result. Our analyses illustrated this point,” he said.

## UK Equine Research Crowdfunding Project Raises \$6,000

The University of Kentucky’s (UK) first research crowdfunding project raised more than \$6,000 for parasitology research with more than 50 individual donors from the United States, Canada, Australia, and several European countries.

Martin Nielsen, DVM, PhD, Dipl. EVPC, ACVM, an assistant professor at the UK Gluck Equine Research Center, launched the crowdfunding project titled, “Let the germs get the worms: Testing a novel probiotic compound for treatment of equine parasites,” in January. The project, which ended on March 10, is possibly the first such effort in the veterinary science field.

“We are highly grateful for the tremendous



support we received. Reaching the first milestone will enable us to test our bacterial product against equine ascarid roundworms under laboratory conditions,” Nielsen said. “Ascarids are a major problem in foals, as they have become highly drug-resistant and are the cause of severe small intestinal impactions.”

Crowdfunding is a relatively new term that describes reaching out to the general public, usually through the Internet, to reach a fundraising goal. Success in reaching the goal often depends on many individuals making smaller donations through a website. The crowdfunding campaign was hosted at <http://equineparasitology.ca.uky.edu>. The site is still available and will continue to allow guests to sign up for more information, access videos and educational information, and ask Nielsen exclusive questions about parasite control for their horses. Featured

## MASTHEAD

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### The Horse: Your Guide to Equine Health Care

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Nielsen said the golden rule is that whenever dewormer resistance occurs, it will be evident in several horses, as they all share the same parasite population.

“Nonetheless, we often observe that farms are classified with dewormer

resistance because of just one horse having a very low egg count reduction,” Nielsen said. **UK**

>Shaila Sigsgaard is an editorial assistant for the Bluegrass Equine Digest.



## First Crowdfunding Project

videos on the site have been viewed more than 1,500 times since it launched.

Nielsen's research team is devoted to providing solutions for worm control in horses. Equine parasites, such as small strongyles and large roundworms, are developing increased levels of resistance to all available dewormers. No new drugs are being developed for use in horses, so the equine industry needs new reliable treatment alternatives. Horses on pasture are constantly exposed to different parasites. These can cause disease signs such as colic, diarrhea, and weight loss. Foals are particularly vulnerable to parasite infection and need special attention in parasite control programs.

**"The crowdfunding platform allows direct interaction with the end users of our research."**

"It is our experience that horse owners are very interested in updated information about parasite control and have great concerns about drug resistance," Nielsen said. "We therefore felt that crowdfunding would be very appropriate for raising funds for research in this area. The crowdfunding platform allows direct interaction with the end users of our research, which is very valuable to us. A good question can inspire us to set up the next research project." **UK**

>Jenny Evans, MFA, is the marketing and promotion specialist senior at the Gluck Equine Research Center.

## GRAD STUDENT SPOTLIGHT

### NAME: JOHN E. EBERTH

From: Versailles, Ky.

Degrees and institute where received:

**BA, Biology, DePauw University**

**MS, Genetics, University of Kentucky**

John Eberth has worked with horses his entire life in multiple areas within the equine industry. Pursuing equine genetics for his graduate degree was a natural next step.

"There is no better place to go for that than the horse capital of the world and the University of Kentucky Gluck Equine Research Center," he said.

During the summer of 2013, Eberth completed his master's degree in equine genetics in the Department of Veterinary Science under the supervision of Gluck Center professor Ernie Bailey, PhD. His research uncovered four mutations in the gene *aggrecan* (the major structural protein of cartilage) that are associated with dwarfism in the Miniature Horse.

This gene produces a protein that is an integral constituent of articular cartilage, he said. These dwarfisms have various phenotypes (physical characteristics) ranging from embryonic lethals (causing death) to dwarfs that grow to maturity and develop various bone growth abnormalities.

"This bone growth abnormality results in varying severity of restriction and/or loss of normal function for the horse that secondarily can cause death," he said.

Eberth said all of these mutations are inherited recessively, so it is an unfortunate circumstance to discover a foal is a dwarf and that the parents carry the mutation.

With the assistance of Kathryn Graves, PhD, director of the Animal Genetic Testing Research Laboratory, Eberth developed the tests for dwarfism for these mutations.

"My hope is that these tests will help the breeders of Miniature Horses and assist them in producing Miniatures without these deleterious mutations," he said.

Eberth is continuing his graduate studies in genetics with a PhD program at UK and hopes to solve other problems related to the health and performance of horses. **UK**



## Placentitis Could be Detected Early with Hormone Testing

Equine placentitis is subtle in its onset, often causing the death of its victim—the unborn foal—before veterinarians can detect and treat it. Equipping veterinarians to identify these cases of placental infection early could help them prevent abortions, lost time on the breeding calendar, and the general heartbreak that can come with losing a foal.

A research team recently looked at whether two plasma estrogen concentrations could be potential diagnostic markers for early ascending placentitis. Barry A. Ball, DVM, PhD, Dipl ACT, Albert G. Clay Endowed Chair in Equine Reproduction at the University of Kentucky Gluck Equine Research Center, presented the team's findings at the 2013 American Association of Equine Practitioners' Convention, held Dec. 7-11 in Nashville, Tenn.

The two estrogens they evaluated—estrone sulfate and 17 $\beta$ -estradiol sulfate—naturally circulate at high levels in pregnant mares with and without experimentally induced placentitis, so the researchers sought to determine if these hormones' concentrations could be used to detect infection. The team checked the mares' hormone levels at Day 0 (before experimental infection in the test group) and then daily for six days.

The found that estrone sulfate levels did not differ between the groups. However, 17 $\beta$ -estradiol sulfate levels dropped significantly within one day of inoculation in the mares with placentitis.

"It is important to note that the study



COURTESY DR. RISSA PARKER

A placenta with placentitis.

>Shaila Sigsgaard is an editorial assistant for the Bluegrass Equine Digest.

## Placentitis

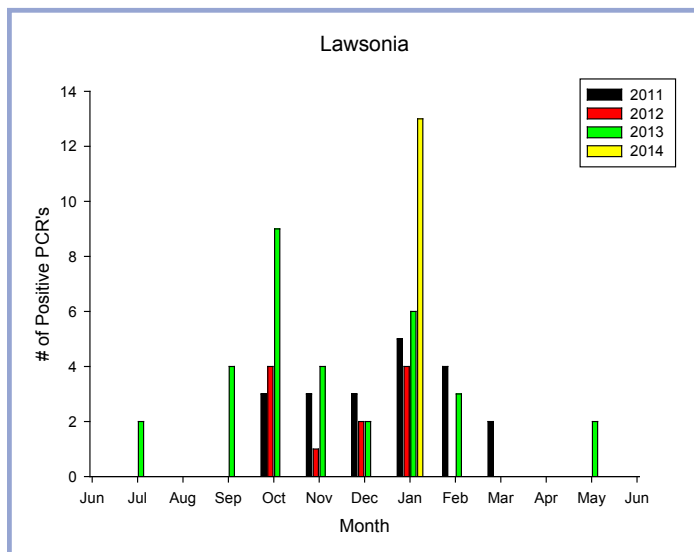
we described deals only with experimentally induced placentitis and abortion in mares," Ball said. "We have yet to examine changes in estrogens in spontaneous clinically occurring cases of placentitis. The interval of estrogen values reported represents the average period of time between inoculation and subsequent pregnancy loss, which is the only period available to us for study." In other words, in natural cases the onset of infection and resulting abortion might occur differently.

Though the researchers believe that estrogens will prove to be a useful indicator of problem pregnancies in the future, researchers need to verify which of the several hormones of the mare will be most relevant for detecting placentitis in clinical studies of horses with naturally occurring infection. **UK**

>Christy Corp-Minamiji, DVM, is a freelance writer and former large animal practitioner in Northern California.

## UKVDL Seeing Increased *Lawsonia* Submissions

According to a March University of Kentucky Veterinary Diagnostic Laboratory (UKVDL) bulletin, the lab is seeing a statistically significant increase in positive *Lawsonia intracellularis* test results as compared to recent years.



Equine proliferative enteropathy (EPE) is an emerging disease of horses that has been reported worldwide. EPE is caused by *L. intracellularis*, a gram-negative bacterium that invades intestinal crypt cells, primarily in the small intestine, and causes thickening of the intestinal lining. This thickening leads to the clinical signs associated with EPE, including anorexia, weight loss, fever, lethargy, depression, and peripheral/ventral edema (fluid swelling), with colic and diarrhea seen occasionally. A thickened small intestinal wall observed by a veterinarian via abdominal ultrasound, although not reliably observed, is highly

## WEED OF THE MONTH

**Common name:** Poison Hemlock

**Scientific name:** *Conium maculatum* L.

**Life Cycle:** Biennial

**Origin:** Eurasia

**Poisonous:** Yes, extremely

Poison hemlock is distributed widely across the United States and grows most frequently along fence borders in shady and moist areas. Seeds germinate in the fall or early spring, and plants flower May through July, depending on location. This robust growing plant can reach heights up to 10 feet. The leaves are alternate or basal (grow from the lowest part of the stem) and are three to four pinnately (featherlike) compound. The weed is sometimes confused with wild carrot (Queen Anne's lace). Stems are erect, smooth, and hollow and have purple mottling. This purple mottling is one characteristic that enables you to distinguish poison hemlock from wild carrot.



Mature poison hemlock (top) and the plant's characteristic purple mottled stem.

This plant is extremely poisonous to horses and humans. All plant parts contain the poisonous alkaloids; however, the fruits contain the greatest concentration of the alkaloids. Poison hemlock gives off a bad odor when crushed, and horses rarely eat this plant because of its low palatability. Poison hemlock plants harvested with hay maintain the toxic properties; care should be taken to avoid feeding hay containing this plant.

Poison hemlock is relatively easy to control with herbicides. Mowing and hand-weeding should occur well before flower production to prevent seed production. Consult your local cooperative extension service personnel for herbicidal control in your area. **UK**

>William W. Witt, PhD, professor emeritus in the department of plant and soil sciences at the University of Kentucky, provided this information.

suggestive of EPE. Clinical EPE is typically found in weanlings and young yearlings, with only a few reports of older horses being affected.

*L. intracellularis* infections have been reported in a number of species, including pigs and laboratory animals, but not humans. EPE is significant not just because of the clinical aspects of the disease, but also because of its economic importance.

Veterinarians can confirm a diagnosis using PCR (polymerase chain reaction, a biochemical technology in molecular biology) on feces. Because the disease's epidemiology is not well-understood, practitioners have not yet determined effective prevention methods. University of California, Davis, researchers are testing a swine vaccine for safety and efficacy.

## Lawsonia Submissions

The UKVDL can assist in diagnosing an *L. intracellularis* infection by performing a PCR test, which are run daily, with a one- to two-day turnaround. Samples sent to the laboratory should be 5 grams intestinal scraping; fecal specimen; fecal swab; and/or scraping of mucosa of harvested tissue. Specimens should be submitted in screw-cap tubes. The cost is \$35 in-state and \$52 out-of-state, plus a \$10 accession fee.

For more information, contact the UKVDL at 859/257-8283 or visit [vdl.uky.edu](http://vdl.uky.edu). **UK**

Information provided by UKVDL's Jacqueline Smith, PhD, Epidemiology Section Chief; Erdal Erol, DVM, PhD, Diagnostic Microbiology Head; and Craig Carter, DVM, PhD, Dipl. ACVPM, Director of the UKVDL and Professor of Epidemiology

## Gluck Equine Research Foundation Releases Fifth Research Report

The University of Kentucky Gluck Equine Research Foundation published its 2013 Research Report in late March of this year. The Research Report 2013 focuses on the UK Maxwell H. Gluck Equine Research Center faculty's research accomplishments and scientific publications during the 2013 calendar year.

The Research Report is divided into the seven sections (genetics and genomics, immunology, infectious diseases, musculoskeletal science, parasitology, pharmacology/toxicology, and reproductive health) and includes faculty members' educational backgrounds, interests, research projects, and graduate students. It also lists research technicians/assistants and visiting scientists in 2013.

The Research Report covers Gluck Equine Research Center awards and grants, scientific publications, including books/chapters in books, refereed journal articles, nonrefereed journal articles, and seminars and abstracts/papers presented. The report also recognizes individuals and organizations that donated money to the Gluck Foundation in 2013.

The Research Report is available online at [www.ca.uky.edu/gluck](http://www.ca.uky.edu/gluck) or at [www.ca.uky.edu/equine](http://www.ca.uky.edu/equine). For more information contact Jenny Evans at [jenny.evans@uky.edu](mailto:jenny.evans@uky.edu) or 859/218-1089. **UK**

>Jenny Evans, MFA, is the marketing and promotion specialist senior at the Gluck Equine Research Center.

## Spring Pasture Management Do's and Don'ts

After a long, cold winter in much of the United States, many farms and their fields will need some work come spring. The following guidelines will help ensure your pasture management efforts are both beneficial and economical for your farm.

**Don't** fertilize cool-season grass pastures heavily with nitrogen in the spring (more than 50-60 pounds actual nitrogen per acre would be considered heavy). These pastures experience a natural flush of growth in the spring; additional nitrogen will only end up costing you in both fertilizer and time spent mowing. Most horse farms do not have high enough stocking rates to utilize all the spring growth and, thus, will end up mowing down most of this production. Also remember that nitrogen benefits weeds and grasses alike.

**Instead**, take a soil sample. Most healthy pastures in

the United States require additional lime, potassium, and phosphorus applications. A soil sample will show exactly what fertilizer you need to add. While you can sample soil anytime, spring is a great time to do so because the weather is nice and you can observe how your pasture is recovering from fall grazing and winter conditions. Farm owners don't truly know

what's in their pastures until they walk them and see.

**If stocking rates are high**, consider top-dressing nitrogen. On farms where horse numbers are very high, such as small private farms or boarding facilities, top-dressing pastures with nitrogen can help them recover faster from the abuse of the previous fall and provide better grazing sooner. Top dress in late March, the first two weeks of May, and the first two weeks of August, if needed.



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For more information on horse pasture fertility, see "Soil Sampling and Nutrient Management in Horse Pastures" at [uky.edu/ag/forage](http://uky.edu/ag/forage), and click on "horse links."

**Don't** undertake spring seeding of cool-season grasses, such as Kentucky bluegrass, orchard grass, and endophyte-free tall fescue in the southern United States. Cool-season pastures are best seeded in the fall when there is less weed pressure, more favorable weather, and a longer rest period before spring grazing.

**Instead**, diversify your farm and plant alfalfa or bermudagrass.

If you have never considered planting alfalfa on your farm, here are a few reasons it might be beneficial for you:

- For large farms that own or can purchase hay equipment or use a custom operator, growing alfalfa or alfalfa-mixed hay for use or sale can be profitable, but generally only on a large scale because of the cost of hay-making equipment.



The Zoetis logo is located in the top right corner of the advertisement. It consists of the word "zoetis" in a lowercase, sans-serif font, with a trademark symbol (TM) to its upper right. The background of the entire advertisement is a dark, blue-toned photograph of a horse pasture at night. Several large, glowing mosquito traps are suspended from trees and a fence line, casting a bright blue light. In the foreground, two horses are grazing in a field. The overall mood is serene but with a subtle warning of mosquito activity.

## OR YOU COULD JUST USE WEST NILE-INNOVATOR®

Mosquitoes may be small, but as transmitters of West Nile virus, they can cause big problems for your horse. Talk with your veterinarian about WEST NILE-INNOVATOR®, the West Nile vaccine that has helped protect more horses than any other.<sup>1</sup>

<sup>1</sup> Data on file, sales report data from 2001 through October 2012, Zoetis Inc.  
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**West Nile  
Innovator**

[WestNileInnovator.com/Horse](http://WestNileInnovator.com/Horse)

## Spring Pasture

- Roundup Ready varieties of alfalfa are very useful for pasture renovation. If your current pasture is overrun with weeds or other undesirable forbs, such as endophyte-infected tall fescue, total renovation using alfalfa might be beneficial. Planting a pasture with Roundup Ready alfalfa allows you to treat the pasture with Roundup (glyphosate) throughout the life of the stand to remove weeds and tall fescue. This could be done for a growing season, returning the pasture to cool-season grasses in the fall or leaving the field in place for several years for better weed control.
  - The alfalfa produced can be harvested for hay or grazed by cattle. Nearby beef or dairy farmers might be interested in your new crop.
- Here are some keys to successful alfalfa establishment:
- Soil pH is important for alfalfa, so do a soil test

and apply the appropriate amount of lime.

- Alfalfa is a legume, capable of fixing nitrogen from the air and storing it in its roots. When the plant dies, that nitrogen remains in the roots, which will benefit any cool-season grasses you plant. However, if you fertilize with nitrogen, you will reduce the plant's ability to fix nitrogen, ultimately costing you more money.
- Spray Roundup Ready alfalfa with glyphosate soon after planting to remove the plants that are not tolerant.

For more information, contact your local county extension agent or see "Growing Alfalfa in the South" at [uky.edu/ag/forages](http://uky.edu/ag/forages) and click on "horse links."

Bermudagrass is a common warm-season forage in the southern United States. However, it can have some applications further north. Because bermudagrass is a warm-season grass, it will be most productive in the summer when traditional cool-season pastures are not as

## Stocking Rates

Stocking rates depend on soil type. In Central Kentucky, for instance, more than one horse per two acres is considered a high stocking rate. But for places like central Texas, a high stocking rate might be closer to more than one horse per 10 acres. To determine if a pasture has a high stocking rate, work with your county extension agent to calculate your farm's carrying capacity and help you use a web soil survey online tool to view your farm's soil types.

productive. It often has very high yields and is very competitive against weeds. For establishment, seed bermudagrass into a well-prepared, tilled seedbed and not into existing pastures.

Points to keep in mind when considering establishing bermudagrass:

- Not all bermudagrass varieties will survive winters in states north of Tennessee and North Carolina, so check your state's forage variety trials for bermudagrass winter survival.
- Some bermudagrass varieties are planted using sprigs or clipping while others are seeded. Make sure you know what you are getting and that you

have the proper equipment for site preparation and planting.

- Bermudagrass is a high-yielding grass, but it also has high nitrogen and potassium demands.
  - Bermudagrass will go dormant and turn brown in early fall. If you are concerned with having green pastures in October, bermudagrass is not for you.
- For more information on bermudagrass, see "Bermudagrass: A Summer Forage" at [uky.edu/ag/forage](http://uky.edu/ag/forage), and click on "horse links." **UK**

>Krista Lea, MS, and Ray Smith, PhD, from UK's Department of Plant and Soil Sciences, provided this information.

## Leader in Residence Event Connects Horses and Education

Debbie Anderson, co-founder and executive director of Strides to Success, spoke at the 2014 W. Norris Duvall Leader in Residence event March 24-28. Strides to Success is an equine-assisted learning facility located in Plainfield, Ind., that connects horses with kids, adults, and veterans for educational purposes and life skills development.

Hosted by the Center for Leadership Development in the University of Kentucky College of Agriculture, Food and Environment, the Leader in Residence program brings to the UK campus nationally and world-renowned leaders known for their ethical decision-making and their focus on youth leadership development.

**Anderson shared her expertise on the challenges of running an equine-assisted learning facility.**

Anderson has been professionally involved in the horse industry for more than 35 years. She has logged more than 10,000 hours of experience with equine-assisted learning and equine-assisted psychotherapy work, serving hundreds of schools, mental health providers, and corporate leaders. During the past several years she has focused on assisting equestrian centers in the United States and abroad in partnering with elementary and secondary schools to develop equine-assisted learning programs.

During the weeklong event, Anderson shared her expertise with UK students and faculty, local school district officials, and private colleges about curriculum development, economic sustainability for equestrian centers through diversification of services, and the challenges of running an equine-assisted learning facility, among other topics.

The Leader in Residence program was sponsored by the W. Norris Duvall Endowment for Youth Leadership, Ethics and Service. The endowment's mission is to support programs that reinforce the importance of integrity, ethical behavior, and civic engagement through service-oriented leadership initiatives for Kentucky's youth and college students. **UK**

>Lissa Pohl, MA, is the assistant director of the Center for Leadership Development within the University of Kentucky College of Agriculture, Food and Environment.



## Graham Motion and Buck Davidson Team Up for UK Lecture Series

Two equine industry titans will team up for University of Kentucky Ag Equine Programs' next Distinguished Industry Lecture Series. H. Graham Motion, trainer of the 2011 Kentucky Derby winner Animal Kingdom, and Bruce "Buck" Davidson Jr., an eventer who competed for the United States at the 2010 Alltech FEI World Equestrian Games and was an alternate for both the 2008 and 2012 U.S. Olympic teams, will speak April 21 at 6 p.m. EDT in the Ag Science Building's Seay Auditorium on the UK campus.



TARA KATHERINE PHOTOGRAPHY

ANNE M. EBERHARDT

Eventer Buck Davidson Jr. and Thoroughbred trainer Graham Motion.

Sponsored by Hagyard Equine Medical Institute, the event is free and open to the public.

"We are thrilled that Mr. Motion and Mr. Davidson are willing to so generously give of their time and expertise to provide this unique opportunity for our students and community to learn from not one, but two of the industry's most respected individuals," said Jill Stowe, PhD, director of UK Ag Equine Programs and faculty member in the College of Agriculture, Food and Environment's department of agricultural economics. "In addition, we are looking forward to discovering the common theme between two seemingly different equine sports, racing and eventing.

Motion captured the 137th Kentucky Derby with Team Valor's Animal Kingdom, who would go on to run second in the Preakness Stakes and win the 2013 Dubai World Cup. Motion, a native of Cambridge, England, moved to the United States when he was 16. His father was a U.S. representative for the British sales company Tattersalls. Motion worked for

Hall of Fame trainer Jonathan Sheppard and as an assistant to Bernard (Bernie) P. Bond before taking out his own trainer's license and has since saddled more than 1,000 winners. Motion resides in Fair Hill, Md., with his wife and two children and operates a public stable, Herringwell Stables, in Lewisville, Pa. His official website is [hgrahammotion.com](http://hgrahammotion.com).

Davidson, son of eventing legend Bruce Davidson Sr., has been in the saddle since birth. He is recognized as an outstanding athlete, horseman, competitor, trainer, coach, and clinician. He runs a training and competition facility during the winter in Ocala, Fla., and during the summer in Riegelsville, Pa. His students range from young riders and adult amateurs to professionals. He will be competing in the 2014 Rolex Kentucky Three Day Event. Accomplishments include the 2013 Pinnacle Trophy for highest placed U.S. Rider at Rolex KY CCI, top-ranked rider in the U.S. in 2011, 2011 Pan American Team member, and second-ranked rider in the U.S. in 2010 and 2009. His official website is [buckdavidson.com](http://buckdavidson.com).

"This lecture series has always featured distinguished leaders and practitioners of the equine industry," said Nancy Cox, PhD, College of Agriculture, Food and Environment dean. "For this series we have a true 'dream team,' invited by Dr. Stuart Brown of our sponsoring organization. Dr. Brown and our speakers are linked through respect and admiration of the late Christine Comella Brown, who was the wife of Dr. Brown and who we are very proud to say is a UK alum."

The Distinguished Lecture Series began in the fall of 2009 and has become a signature event of UK Ag Equine Programs. It is designed to showcase important figures from the equine industry in an informal setting. Dan Liebman, past editor-in-chief of *The Blood-Horse*, has interviewed all of the participants.

Previous speakers include Keeneland's Nick Nicholson in November 2009, accomplished equestrienne Nina Bonnie in April 2010, Keeneland's Ted Bassett in April 2011, Zenyatta owners Jerry and Ann Moss in September 2011, and Olympian Reed Kessler in November 2012. **UK**

>Holly Wiemers, MA, is communications director for UK Ag Equine Programs.

## UPCOMING EVENTS

### April 21, 2-5 p.m.

Gluck Equine Research Foundation Board of Directors spring meeting, Gluck Equine Research Center

### April 21, 6-8 p.m.

UK Ag Equine Programs Distinguished Lecture Series, University of Kentucky Seay Auditorium

### April 24-27

Rolex Kentucky Three Day Event, Kentucky Horse Park

### April 25-27

Kentucky Reining Cup, Kentucky Horse Park, Alltech Arena

## We Need Your Feedback!

We want to give you, our valued readers, the opportunity to share your insights about the Bluegrass Equine Digest newsletter. We have created a brief online survey to collect this information, and we would appreciate your help. The information that you share with us will be very valuable as we plan for the future.

This quick survey asks you to share your perceptions of the Bluegrass Equine Digest as well as some information about yourself. Rest assured, your responses are completely anonymous. Your answers simply help us to better understand our readers and what we can do to provide improved content.

Complete the survey by April 15 and be automatically entered to win a \$100 gift card!

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